AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims

1-10. (Cancelled)

11. (New) A method in a cellular mobile telecommunication system for cell planning and preparing for a cell split when a cell tends to get congested or overloaded, said method comprising the steps of:

registering position related data comprising the locations for mobile users (MS) together with what service is used by each user in terms of bit rate; and,

creating an estimation of the traffic density within the cell as a function of said position related data.

12. (New) The method of claim 11, further comprising the step of registering the path losses experienced on the radio channels of the mobiles.

13. (New) The method of claim 11, wherein an optimal site for a new base station is established based on the registered data.

14. (New) The method of claim 13, wherein maximizing the function

$$x_{opt}, y_{opt} = max\ f(BR_n/PL_n, x_n, y_n)\ for\ all\ n$$

gives the optimal site location for the new base station, where n is an index number for the mobile users of the cell, BR_n is the bit rate used, PL_n is the path loss and x_n, y_n is the location of the user n.

15. (New) The method of claim 14, further comprising the step of generating a map showing the site of the new base station.

16. (New) A cell planning tool for preparing for a cell split in a cellular telecommunication system, comprising:

a control network for registering the location of mobile stations;

means for registering the services used by the mobile stations; and,

means for, based on the location and service data, estimating the traffic density of the cell.

17. (New) The cell planning tool of claim 16, further comprising means for registering the path losses of the radio channels allocated to the mobile stations.

18. (New) The cell planning tool of claim 16, wherein an optimal location for a new site is established in a cell planning system node.

19. (New) The cell planning tool of claim 18, wherein the system node establishes the optimal location based on the maximum of the function:

$$x_{opt,}\, y_{opt} = max\ f(BR_n/PL_n,\, x_n,\, y_n)\ for\ all\ n$$

where n is an index number for the mobile users of the cell, BR_n is the bit rate used. PL_n is the path loss and $x_n,\, y_n$ is the location of the user n.

20. (New) A cellular telecommunication system comprising base stations and mobile stations in communication with each other in a cell under supervision of a control network including a cell planning system node which collects data from the telecommunication system relating to the location of the mobile stations, their path losses on their radio channels and the services they use, and wherein said cell planning system node comprises data collecting and calculation equipment which predicts an optimal place for a new base station when the cell otherwise will be overloaded.

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